

PHOTOGRAPHY

FAQ

Q What do the (35-105mm) numbers mean in specs?

A These figures are the focal length range of the lens. Focal length is the distance from the optical centre of the lens (where light converges to a single point) to the camera's sensor. The shorter the distance, the wider the field of view (FOV). A 35mm focal length gives a 54° horizontal FOV, while 22mm equates to 78° and 400mm to just 5°. A 3x zoom specification merely tells us the ratio between the shortest and longest focal lengths, but the actual focal length values tell us the specific wide-angle and telephoto fields of view.

The FOV also depends on the physical size of the sensor, which is why focal lengths for digital cameras are usually quoted as 35mm-equivalent. These are the focal lengths that would give the same FOV on a 35mm film camera, making it easier to compare lenses, regardless of sensor dimensions.

Ben Pitt

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SAMSUNG S1050

★★★★

£153 inc VAT

Samsung's S1050 is a camera with some big numbers. The 10-megapixel sensor produces colossal images, its 5x optical zoom is getting on for twice that of most compact cameras and the 3in LCD screen is frankly enormous. The only figure that's reasonably humble is the price. At £153 including VAT, this is the most affordable 10-megapixel camera we have seen by quite a margin.

The menu system is divided into photographic controls, special effects and general settings, each accessed by a different button. The black, engraved icons are tricky to see, though, so you'll need to memorise which button does what. The mode dial includes aperture-priority, shutter-priority and manual exposure modes. We're always delighted to see these options, but they could be better implemented. You need to half-press the shutter button to preview the exposure brightness and depth-of-field effects, but doing so takes the camera out of the mode for adjusting aperture and shutter speed. The 3in screen and its 230,000-pixel resolution help with manual focus, but not enough for precise fine-tuning.

Four seconds to switch on and take a picture is too slow for our liking, and the three-second gap between shots is fairly pedestrian, too. This is often a downside of high-resolution cameras, but dropping the resolution didn't improve matters. The huge screen zaps battery life, only managing 260 shots in our test.

A 10-megapixel sensor can push the limitations of a camera's optics, but we were pleased to see that the S1050's images were seriously sharp right into the corners of photos. Subtle skin



textures were captured with impressive detail and the default centre-weighted metering option coped well with bright and dark backgrounds. However, even in very bright conditions, noise was visible in darker areas of photos; this was not enough to spoil them, but enough to take the shine off sharp detail. The problem worsened in gloomier lighting, and indoor shots at ISO 400 were distinctly grubby. The camera sensibly limits itself to ISO 200 on automatic settings, but this means it isn't a great camera for low-light photography.

Video is recorded in MPEG4 format at a generous 840x480 pixels, giving a wide aspect ratio and more detail than with most digital cameras' video modes. However, there was quite a lot of noise in videos, which put a strain on the MPEG4 format (noise is inherently

complex, which makes it hard to discard information to reduce file sizes). The result was that video looked quite messy, particularly in low light and fast-moving scenes.

This is almost an excellent-value camera but, as is often the case with very high-resolution sensors, noise is its downfall. We love its 5x zoom and 3in screen, but we'd prefer to live without them and settle for the Canon A630's smaller but cleaner images (see 'Also consider...', below right).

Ben Pitt

SUMMARY

- ✓ Incredible specifications
- ✗ Noisy photos and videos
- ✗ Short battery life

DIGITAL CAMERA 10.0 megapixels (3,648x2,736), 5x optical zoom (38-190mm), SDHC slot (45MB internal), 2x AA batteries
PART CODE 8801089405531
SUPPLIER www.amazon.co.uk
DETAILS www.samsungcamera.co.uk

PERFORMANCE (see page 62)

Battery life **260 shots** -50% Reference +50% +100%

Also consider...

PANASONIC Lumix DMC-TZ2

★★★★★

£213 inc VAT

PRICE CUT!



It may look like a standard compact digital camera, but

Panasonic's Lumix DMC-TZ2 contains an enormous 10x zoom lens. The lens enables you to take both wide-angle and close-up shots, providing a great deal of versatility in composition. With built-in optical image stabilisation, the TZ2 is the best travelling companion we've seen.



DIGITAL CAMERA 6 megapixels (2,816x2,112), 10x optical zoom (28-280mm), SDHC slot (13MB internal), li-ion battery
PART CODE DMC-TZ2EB-S
SUPPLIER www.dabs.com
DETAILS www.panasonic.co.uk
✓ Big zoom; fast performance
✗ No manual controls
FULL REVIEW Aug 2007

Battery life **360 shots** -50% Reference +50% +100%

CANON EOS 400D

★★★★★

£505 inc VAT



The successor to the hugely popular EOS 350D, Canon's EOS 400D is the best affordable digital SLR camera on the market. Incredibly fast focusing, a high capture rate and brilliant image quality from the 10.1-megapixel sensor all make it really hard not to love this camera. For photography enthusiasts who want to upgrade from a film SLR or compact camera, this is undoubtedly the model to get.



DIGITAL CAMERA 10.1 megapixels (3,888x2,592), 3x optical zoom (18-55mm), CompactFlash slot, li-ion battery
PART CODE 1237 B009AA
SUPPLIER www.dabs.com
DETAILS www.canon.co.uk
✓ Fantastic image quality
✗ Finite continuous mode
FULL REVIEW Feb 2007

Battery life **505 shots** -50% Reference +50% +100%

OLYMPUS μ780



£185 inc VAT



It has been a little while since we were dazzled by an Olympus camera, but the company is back with a bang with its μ780.

This digital camera shares its aluminium, weatherproof design with the rest of the μ range, and the ultra-compact size means it will slip comfortably into pockets and bags. The 5x zoom lens is a significant improvement on the 3x zooms on most ultra-compact cameras, and optical image stabilisation is built into the CCD to avoid blur from camera shake. Around the back is the obligatory 2½in, 230,000-pixel screen and the buttons benefit from backlit icons to improve visibility in low light. The only thing we don't like about the design is that the flash risks being obscured by a finger during shooting.

Olympus has overcome the performance issues of its previous compact digital cameras. The μ780 switched on and captured a picture in 1.7 seconds, with subsequent shots averaging every two seconds. Browsing pictures on xD card was much faster than on previous Olympus cameras and it's now possible to switch off the text that sprawls across the screen during image playback. The slow performance of xD media hampered the 1fps continuous mode at the top-quality setting, although dropping from SHQ to HQ compression removed the bottleneck. A high-speed continuous

option captured 3-megapixel shots at 3.8fps. Menu delving was rarely necessary, as a function button gave quick access to the most useful photographic controls.

Outdoor image-quality tests revealed reasonably sharp detail with smooth, accurate colours and very little noise. Focus tended to be sharp in a relatively narrow range of distances, which is great if you want to draw attention to a subject but less than ideal when capturing a group of subjects at different distances. Cameras with aperture priority modes allow you to choose between the two extremes, but this isn't available here. However, detail was excellent when shooting faraway objects, thanks to the 5x zoom and optical image stabilisation. The optical image stabilisation also came in useful when shooting indoors without the flash. Some noise was visible in low light, even at low ISO speeds, but the ISO 800 setting turned in surprisingly clean, detailed photos and ISO 1600 proved usable in emergencies.

The μ780's best asset is its handling of high-contrast scenes. All cameras adjust their exposure based on the amount of light, but the μ780 seemed less concerned about average brightness and more about avoiding clipping of shadows and highlights. As a result, more detail was preserved in bright and dark areas. Meanwhile, a dedicated button activates Shadow Adjustment

Technology, a new feature that's designed to retrieve details that are hidden in shadows. We have heard similar claims from other manufacturers but struggled to find any hard proof of the technologies in action. However, we can safely conclude that Shadow Adjustment Technology worked superbly.

When shooting a portrait against a bright background, activating the feature brightened up the subject's face without overexposing the background. Similarly, when shooting against a dark background, it reduced the overexposure in the subject and the underexposure of the background. The downside was increased noise and colour quantisation in the darker areas, but this is a fair price to pay for such a useful feature. In less challenging lighting, it made pictures look a little flat, though, so it's worth activating it only when necessary. Hopefully, Olympus's next implementation will be able to switch itself in and out automatically.

The μ780 is a camera with lots of strengths and barely any weaknesses. Fujifilm's F40fd (which we reviewed in *What's New, Shopper* July 2007) currently costs £150 and offers sharper detail and less noise, but its handling of tricky lighting isn't up to the same standards. The μ780 also boasts a bigger zoom, optical image stabilisation and weatherproofing. For us, that's enough to clinch the deal in Olympus's favour.

Ben Pitt



SUMMARY

- ✓ Excellent images
- ✓ Smart, weatherproof design
- ✗ Other cameras offer sharper detail

DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 5x optical zoom (36-180mm), xD slot (15MB internal), li-ion battery
PART CODE N2923692
SUPPLIER www.rankhour.com
DETAILS www.olympus.co.uk

PERFORMANCE (see page 62)

Battery life **308 shots**
-50% Reference +50% +100%

PANASONIC Lumix DMC-FZ50



£269 inc VAT



Panasonic's Lumix DMC-FZ50 gives almost digital SLR performance on a much lower budget. The huge 12x optical stabilised zoom lens and 10-megapixel CCD allow you to get close to the action. Image quality is excellent at low ISO settings, but ISO 400 or higher produces grainy images. It's the best super-zoom digital camera on the market.



DIGITAL CAMERA 10 megapixels (3,648x2,736), 12x optical zoom (35-420mm), SD slot (32MB card supplied), li-ion battery

PART CODE PANLUMFZ50
SUPPLIER www.fotosense.co.uk
DETAILS www.panasonic.co.uk

- ✓ Fantastic handling; beautiful pictures in well-lit conditions
- ✗ Image quality slumps as ISO setting rises

FULL REVIEW Jan 2007

Battery life **359 shots**
-50% Reference +50% +100%

FUJIFILM FinePix F20



£99 inc VAT



Despite its cheap price, Fujifilm's FinePix F20 camera has a metal body and a lithium-ion battery. The F20's 2½in screen is also above average for a budget camera.

The FinePix F20 offers superb image quality and produced pleasing colours and sharp detail. It is an excellent camera at an excellent price.



COMPACT DIGITAL CAMERA 6.1 megapixels (2,848x2,136), 3x optical zoom, 10MB internal memory, xD slot, 3.6V 1,150mAh li-ion battery
PART CODE N077830A
SUPPLIER www.amazon.co.uk
DETAILS www.fujifilm.co.uk

- ✓ Superb image quality; smart design
- ✗ Uses only xD media

FULL REVIEW Sep 2007

Battery life **432 shots**
-50% Reference +50% +100%

CANON PowerShot A630

PRICE CUT!



£125 inc VAT

Canon's PowerShot A630 is the first inexpensive camera we've seen to offer full photographic controls. It has a 4x zoom, 8-megapixel sensor and a full set of manual focus, exposure and priority modes.

The camera is easy to use, fast and has excellent image quality. The high quality and versatility are extraordinary at this price.



DIGITAL CAMERA 8.0 megapixels (3,264x2,448), 4x optical zoom (35-140mm), SDHC slot (16MB supplied), 4x AA batteries

PART CODE 12888007AA
SUPPLIER www.buyacamera.co.uk

- ✓ Excellent image quality; full manual control
- ✗ Bulky

FULL REVIEW Jun 2007

Battery life **413 shots**
-50% Reference +50% +100%

BENQ T700

★★★

£137 inc VAT

At 17mm thin, and only a little bigger than its 3in touchscreen, BenQ's T700 is likely to get noticed. Its 120g weight might go unnoticed in your pocket, though.

The lens and the onscreen menus appear to be the same as on Pentax's Optio T10 (*Labs*, *Shopper* December 2006). A touch screen isn't necessarily quicker than standard buttons, but it's a little easier to use and it is certainly more fun. We particularly like how it's possible to define up to four photographic settings that can be accessed simply by prodding anywhere on the screen. We're also taken by the on-camera editing options, which include the ability to cut out an area of a photo and stick it on to another.

Sadly, there's not much else to the T700 that we feel positive about. It took six seconds to switch on and take a picture, and subsequent shots were five seconds apart. The 0.43fps continuous mode and 188-shot battery life are among the worst we have seen for years. Manual focus is listed in the focus options,



but selecting it didn't actually provide us with a manual focus control.

Video is recorded in MPEG4 format, giving decent quality and small file sizes, although audio was crackly. Photos were sharp, but there was evidence of heavy digital sharpening, with a halo of white around black text that didn't improve legibility. Colours were often strange, with yellow grass and purple branches in our outdoor tests. Noise-reduction processing smudged detail in pictures taken indoors, but noise was still pretty heavy at ISO settings above 160.

The T700 is a case of style over substance. It's not a terrible camera, but image processing is far behind the standards set by the leading digital camera manufacturers.

Ben Pitt

SUMMARY

- ✓ Slim design with 3in touch screen
- ✗ Basic image quality
- ✗ Poor performance

DIGITAL CAMERA 7.1 megapixels (3,072x2,304), 3x optical zoom (37½-112½mm), SD slot (12MB internal), li-ion battery
PART CODE 9J.07367.90E
SUPPLIER www.morecomputers.co.uk
DETAILS www.benq.co.uk

PERFORMANCE (see page 62)

Battery life **188 shots**

NIKON Coolpix L11

★★★★★

£74 inc VAT

We didn't have room to include the Coolpix L11 in last month's budget camera *Labs*, but its cheaper sibling, the £66 L10, performed superbly. The L11 takes 6- rather than 5-megapixel images and its screen is bigger at 2.4in, although the 115,000-pixel screen resolution is lower than the L10's 2in, 153,000-pixel screen. The curved plastic design is more cuddly than stylish, but it's compact, light and seems durable.

Photographic options are understandably basic, with no ISO control or metering modes, but we were pleased to see that white balance presets and a manual mode are included. Performance is up to scratch, taking three seconds to shoot from startup and just over two seconds between subsequent shots. Focus could be quicker, though, particularly at telephoto zoom settings where it sometimes took repeated attempts to focus at all.

We tested the L11's image quality alongside the cameras in last month's *Labs* round-up. Detail was unremarkable, with a slight softness to images compared to the frontrunners, although



not enough to cause serious concern. The 15cm closest macro focus was pretty disappointing, though. Colour accuracy, however, was the best of all the cameras on test, with consistently accurate hues and excellent automatic exposures. The only exception was in dim artificial lighting, where white balance presets were required for best results. Best of all was noise, or lack of it: photos shot in low light were a little blotchy, but

less so than we're used to seeing, especially at this price. The camera varied its ISO speed automatically from 64 to 800, choosing sensible settings that didn't make us wish for a manual control.

Nikon's L11 doesn't have that extra-special something to match the five-star cameras in last month's *Labs*, but it's friendly, dependable and affordable.

Ben Pitt

SUMMARY

- ✓ Excellent image quality for the price
- ✓ Straightforward operation
- ✗ Unreliable at telephoto zoom settings

DIGITAL CAMERA 6 megapixels (2,812x2,112), 3x optical zoom (37½-112½mm), SD slot (7MB internal), 2x AA batteries
PART CODE VAA750E6
SUPPLIER www.amazon.co.uk
DETAILS www.nikon.co.uk

PERFORMANCE (see page 62)

Battery life **336 shots**

CHOOSING AN... Ultra-Zoom Camera

Follow the steps to your ideal specs

RESOLUTION: 6 megapixels
ZOOM: 6x optical (35-210mm), no stabilisation
MONITORING: 2in, 115,000-pixel LCD screen
EXPOSURE MODES: Auto
SUPPLIED MEMORY: 10MB internal
BATTERIES: 2x AA disposable
 Recommended minimum in grey

1 An ultra-zoom camera gives you more freedom to frame your photos in interesting ways, allowing you to shoot faraway or small subjects or zoom in on a particular area of a scene. A camera with the specifications shown above in grey is essentially a standard compact camera with a larger zoom than normal, but ultra-zoom cameras often come with other advanced features for creative photography.

2 Now six megapixels is an entry-level specification, resolution is fairly irrelevant. We've seen 6-megapixel cameras that capture more detail than 10-megapixel cameras. If you want to print enlargements, read our reviews to find out how much detail a camera is capable of providing.

3 A 6x zoom isn't bad, but many cameras offer 10x or 12x. However, while higher zoom settings magnify the image, they also magnify blur caused by camera shake, so optical image stabilisation is particularly useful for steadying shots. Most zooms start at a 35mm focal length, but lower values allow for wide-angle photography.

4 LCD screens of 2½in and larger are a treat to use, but they don't always offer more detail. Only the best ones have resolutions of 200,000 or more pixels. Many ultra-zoom cameras also include an electronic viewfinder (EVF), which is an additional LCD screen in lieu of an optical viewfinder.

5 Creative photographers should try to look out for aperture priority, shutter priority and manual exposure modes, and manual focus. High ISO speeds can be useful for low-light handheld photography, but only if reasonable image quality is maintained.

6 Bundled memory is always inadequate, so budget £15 for a 1GB memory card, and another £15 if the camera doesn't include rechargeable batteries.